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EXAMINER

CHEN, TE Y

ART UNIT

PAPER NUMBER

2171

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5

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/820,451

Applicant(s)

Cu et al.

Examiner

T. Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Jul 10, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 1-21 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4 6) ☐ Other:

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### DETAILED ACTION

1. Claims 1 - 21 are presented for examination.

#### *Specification*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:  
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of 37 CFR 1.71(a)-(c):

(a) The specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same.

(b) The specification must set forth the precise invention for which a patent is solicited, in such manner as to distinguish it from other inventions and from what is old. It must describe completely a specific embodiment of the process, machine, manufacture, composition of matter or improvement invented, and must explain the mode of operation or principle whenever applicable. The best mode contemplated by the inventor of carrying out his invention must be set forth.

© In the case of an improvement, the specification must particularly point out the part or parts of the process, machine, manufacture, or composition of matter to which the improvement relates, and the description should be confined to the specific improvement and to such parts as necessarily cooperate with it or as may be necessary to a complete understanding or description of it.

3. The specification is objected to under 37 CFR 1.71 because the specification failing to provide an adequate written description of the invention.

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4. Initially, the examiner notes the separate nature of the written description requirement as contrasted to the enablement requirement of the first paragraph of 35 U.S.C. 112. See *In re Barker*, 559 F.2d 588, 194 USPQ 470 (C.C.P.A. 1977). The function of the written description requirement is to ensure that the inventor had possession, as of the filing date of the application here relied on, of the specific subject matter later claimed by him. See *In re Edwards*, 568 F.2d 1349, 196 USPQ 465 (C.C.P.A. 1978). The question is not merely one of literal support for the questioned claim language in the original disclosure, it is one of the disclosure of concepts. See *In re Wilder*, 736 F.2d 1516 222 USPQ 369 (Fed. Cir. 1984) and *In re Kaslow*, 707 F.2d 1366, 217 USPQ 1089 (Fed. Cir. 1983). It appears that applicants has attempted to incorporate some generalized scalar function and conventional column function into their specification to thereby support claims to any combination or permutation of features therefrom. The fact that features are mentioned individually does not mean that applicants have invented anything. There must be some evidence within the application filed that applicants were in possession of the claimed combinations. Incorporation by reference of a dictionary does not constitute disclosure of a novel which uses only words from that dictionary.

Similarly, without more, the stand alone generalized scalar function and conventional column function do not provide support for combining any features, regardless of what applicants may teach.

To be effective in showing possession of the invention, an incorporation of the structures, links and mechanism derived from the generalized function to simulate the conventional column

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function environment which specifically contribute to the claimed features and for what purpose should be disclosed.

5. If applicants continue to prosecute the application, revision of the specification and claims to present the application in proper form is required. While an application can be amended to make it clearly understandable, no subject matter can be added that was not disclosed in the application as originally filed.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-21, are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

8. As to claims 1, 8 and 15, applicants fail to disclose the simulation mechanism and the corresponding data structures, for simulating the claimed scalar function with row parameter into

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conventional column parameter environment. Particularly, the submitted specification fails to show the form of a generalized scalar function. It also miss the structure being utilized to map the generalized function with a plurality of columns of a row into the claimed column function parameter. Furthermore, it fails to disclose the technique to initialize, evaluate and finalize the claimed column function. As such, the specification does not enable any skilled person in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention claimed.

9. As to claims 2-7, 9-14 and 16-21, these claims have the same defect as their base claims, hence are rejected for the same reason.

***Claim Rejections - 35 USC § 112***

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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12. As to claims 1, 8, and 15, the use of word “capable of” is indefinite, since this phrase leads to uncertainty of whether anything actually occurs (or results). In addition, it is uncertain what does the claimed “an indeterminate number of entries” refer to? [i.e., Does it refer to the plurality of records? Or columns? Or others?] Furthermore, it is unknown what is the structure of the claimed generalized scalar function? How could this generalized function allow the at least one row to be provided to the claimed column function as though the at least one row was a column [i.e., a row may represent a record of a database table, which may comprise a plurality of columns. In this case, it is not understood how to map the plurality of columns into the claimed “a column”?].

13. As to claims 6, 13, and 20, it is unclear what is it meant by “a first entry of each of the at least one row” [i.e., what is this entry referred to? Does it refer to the first column of the row? Or does it refer to the record of the row? Or others?] Furthermore, it is unsure what was initialized to the claimed first entry? What was evaluated on each entry of the claimed at least one row? What was finalized after the evaluation of the last entry of the at least one row? What is the purpose to perform the claimed initialization, evaluation, and finalization phases?

14. As to claims 2-7, 9-14 and 16-21, these claims have the same defects as their base claims, hence are rejected for the same reasons.

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***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

15. Claims 1-21, are rejected under 35 U.S.C. 102(e) as to the best of the examiner assertion, being anticipated by Melton et al. (U.S. Patent No. 6,289,336).

16. As to claim 1, 8 and 15, Melton et al. (hereinafter referred as Melton) discloses a system [100, Fig. 1] with means, method and computer program product as claimed by applicant, to perform the following functions, comprising:

a) an interface [106, 116, Fig. 1] for allowing a user to specify row argument for a generalized scalar function [the Rows Since function, col. 2, lines 10-45; for example, the SELECT ROWS SINCE (THIS (LOWTEMP) > LOWTEMP) function, col. 12, lines 44-58];

b) a SQL compiler [118, Fig. 1; col. 3, line 65 - col. 4, line 11] to simulate a generalized scalar function [the Rows Since function, col. 2, lines 4-45] as the column function environment, to allow the column function performed on row parameters [e.g., see the SELECT ROWS



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SINCE (THIS (LOWTEMP) > LOWTEMP) function, col. 12, lines 44-58; or the MovingAverage(a, window), MovingSum(a, Window), MovingVariance(a,window), etc];

c) ) a SQL executor [120, Fig. 1; col. 3, lines 33-62] to perform the column function operation on a dynamic number of entries [for example, the RunningMin(a), RunningMax(a), etc, col. 10, lines 18-29, etc].

17. As to claims 2-3, 6-7, 9-10, 13-14, 16-17 and 20-21, Melton further discloses the generalized scalar function fetches at least one row [e.g., the THIS function will fetch the current row, col. 12, lines 46-50]; and use the scalar function to simulate the column function for repeating the initialization, evaluation and finalization phases to provide an output for a dynamic number of entries in the row [for example, col. 4, line 59 - col. 5, line 4; Table 1, Table 2].

18. As to claims 4-5, 11-12 and 18-19, Melton further discloses that the column function provides a maximum of each of the at least one row [for example, the RunningMax(a); col. 10, lines 21-22] and a minimum of each of the at least one row [e.g., the RunningMin(a); col. 10, lines 19-20].

### ***Conclusion***

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Miller et al. (U.S. Patent No. 6,553,366) which discloses a system to perform analytic

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logic data entity and attribute processing against a relational database; Melton et al. (U.S. Patent No. 6,289,336) which discloses a system and method to compute bows since sequence function in a database.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Chen whose telephone number is (703) 308-1155. The examiner can normally be reached Monday through Friday from 7:30 A.M. to 4:30 P.M.

21. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic, can be reached at (703) 308-1436. The fax phone numbers for this group are:

(703) 746-7238 (After Final Communication);

(703) 746-7239 (Official Communications); and

(703) 746-7240 (For Status Inquiries, Draft Communication).

22. Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Susan Chen

May 23, 2003

  
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